

***National Aeronautics and Space Administration  
Advisory Council***

**Audit, Finance, and Analysis Committee**

***May 5, 2011***

**Members:**

*Mr. Robert Hanisee, Chairman*

*Hon. William Campbell*

*Hon. Michael Montelongo*

*Dr. Howard Stanislawski*

*Mr. Jeffrey Steinhoff*



# Audit, Finance & Analysis Committee

## Abridged Agenda

May 2 – 3, 2011

*Path Forward to a Positive and Productive Audit Experience Assurance*

*Charlene Williams, OCFO Quality Division*

*Chief Financial Officer (CFO) Update*

*Dr. Beth Robinson, NASA CFO*

*Budget Update*

*Andrew Hunter, DCFO  
Agency Budget, Performance, and Strategy*

*Auditor Update*

*Walt Fennell, Engagement Partner (PwC)  
Mark Keeley, IT Partner (PwC)*

*Office of Inspector General (OIG) Overview of Ongoing Audits for*

*Paul Martin, NASA Inspector General  
Jim Morrison, Assistant Inspector General Audits*

*Unfunded Environmental Liability Update*

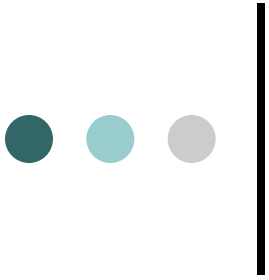
*Kenneth Kumor,  
Environmental Management Division  
James Leatherwood, Director,  
Environmental Management Division*

*Overview of the GAO Quick Look Book Audit*

*Kathleen Gallagher, OCFO Strategic Investments Division*

*Overview of NASA Strategic Plan*

*Jessica Southwell, OCFO Strategic Investments Division*



# CFO Update



# CFO Update

## OCFO Strategic Plan implementation

- Increase communication links among Center CFOs
- Become a more capable decision support organization

## Commercial Pricing for NASA resources

- More consistency among Centers
- Ensure there's a formal approval process for NASA facilities



# Overview of NASA Strategic Plan



# NASA 2011 Strategic Plan

- NASA released a new Strategic Plan in February
- New performance framework added new metrics for performance goals



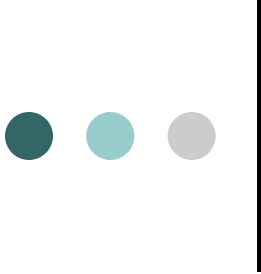
# Strategic Goals: 2011 and Beyond

- Strategic Goal 1: Extend and sustain human activities across the solar system
- Strategic Goal 2: Expand scientific understanding of the Earth and the universe in which we live
- Strategic Goal 3: Create the innovative new space technologies for our exploration, science, and economic future
- Strategic Goal 4: Advance aeronautics research for societal benefit
- Strategic Goal 5: Enable program and institutional capabilities to conduct NASA's aeronautics and space activities
- Strategic Goal 6: Share NASA with the public, educators, and students to provide opportunities to participate in our Mission, foster innovation, and contribute to a strong national economy



# Core Values and Overarching Strategies

- NASA's 2011 Strategic Plan retained the Agency's existing core values introduced in the 2008 Governance and Strategic Management Handbook (NPD 1000.0A), including:
  - Safety
  - Integrity
  - Teamwork
  - Excellence
- The Strategic Plan also introduced overarching strategies governing program management and Agency alignment with OpenGov and major Administration initiatives:
  - Investing in next-generation technologies
  - Inspiring students
  - Expanding partnerships
  - Committing to environmental stewardship
  - Securing the public trust (through transparency and accountability)



# Government Performance and Results Act Modernization Act of 2010(GPRAMA) Requirements: Strategic Planning

- **GPRAMA changed strategic planning and reporting requirements for all agencies by requiring:**
  - Coordinated, crosscutting efforts to achieve meaningful results, while avoiding duplication of efforts
  - Performance information must be both useful and used in decision making
  - Agencies must update their strategic plans concurrent with the publication of the FY 2013 budget to incorporate four-year Federal government and agency Priority Goals.
  - Report performance through a single Federal website
  - Leadership commitment and accountability for achieving results



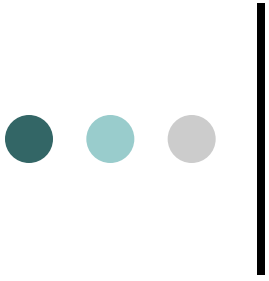
# GPRAMA Requirements: Agency Performance Leadership

- Chief Operating Officer (COO)– Deputy head of agency with responsibilities to improve agency management and performance  
**(Christopher Scolese, Associate Administrator)**
- Performance Improvement Officer (PIO) – Agency senior executive chosen by agency head and COO, with responsibilities related to implementing the agency requirements of GPRAMA  
**(Dr. Elizabeth Robinson, Chief Financial Officer)**
- Goal Leaders – For each performance goal (including any priority goals), the agency official(s) responsible for achieving the goal  
**(To Be Determined)**



# Strategic Implementation Plan Approach

- The evaluation approach will incorporate current year performance and planning; budget and resource adequacy; policy compliance; and commitments
  - Activities that fail to meet strategic goal(s) are required to produce corrective action plan(s)
  - Long-term strategies must relate to short term activities and recognize the critical relationship of short-term action to attaining the long-term vision
- As required by GPRAMA the Performance Improvement Officer will communicate the achievement of all goals to leaders, managers, and employees in the agency and Congress
- Performance information will help guide leadership's decisions



# Budget and Performance Reporting Update

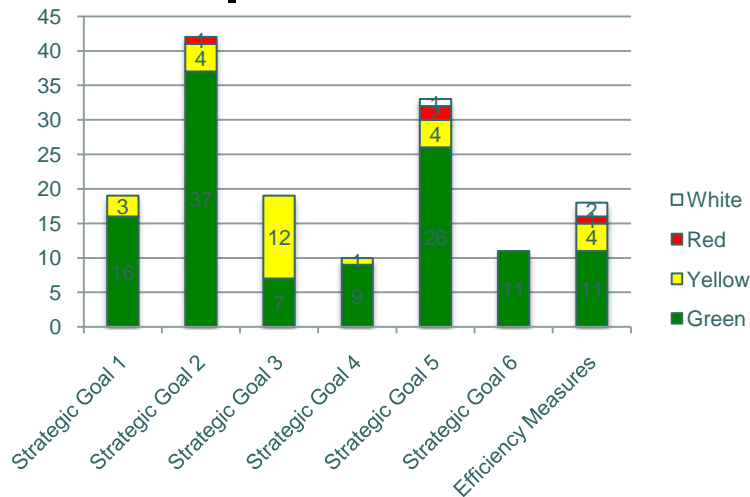
# FY 2012 Budget Request

Budget Authority (\$M)	FY 2010	FY 2011 Annualized CR	FY 2011 Authorization Act	FY 2012
<b>Science</b>	<b>4,498</b>	<b>4,469</b>	<b>5,006</b>	<b>5,017</b>
Earth Science	1,439		1,802	1,797
Planetary Science	1,364		1,486	1,540
Astrophysics	647		1,076	683
James Webb Space Telescope	439			375
Heliophysics	608		642	622
<b>Aeronautics</b>	<b>497</b>	<b>501</b>	<b>580</b>	<b>569</b>
<b>Space Technology</b>	<b>275</b>	<b>327</b>	<b>512</b>	<b>1,024</b>
<b>Exploration Systems</b>	<b>3,626</b>	<b>3,594</b>	<b>3,706</b>	<b>3,949</b>
Human Exploration Capabilities	3,288		2,751	2,810
Commercial Spaceflight	39		612	850
Exploration Research and Development	299		343	289
<b>Space Operations</b>	<b>6,142</b>	<b>6,147</b>	<b>5,508</b>	<b>4,347</b>
Space Shuttle	3,101		1,610	665
International Space Station	2,313		2,780	2,841
Space and Flight Support	728		1,119	841
<b>Education</b>	<b>180</b>	<b>183</b>	<b>146</b>	<b>138</b>
<b>Cross-Agency Support</b>	<b>3,018</b>	<b>3,019</b>	<b>3,111</b>	<b>3,192</b>
<b>CoF and ECR</b>	<b>453</b>	<b>448</b>	<b>394</b>	<b>450</b>
<b>Inspector General</b>	<b>36</b>	<b>36</b>	<b>37</b>	<b>38</b>
<b>NASA FY 2012</b>	<b>18,724</b>	<b>18,724</b>	<b>19,000</b>	<b>18,724</b>

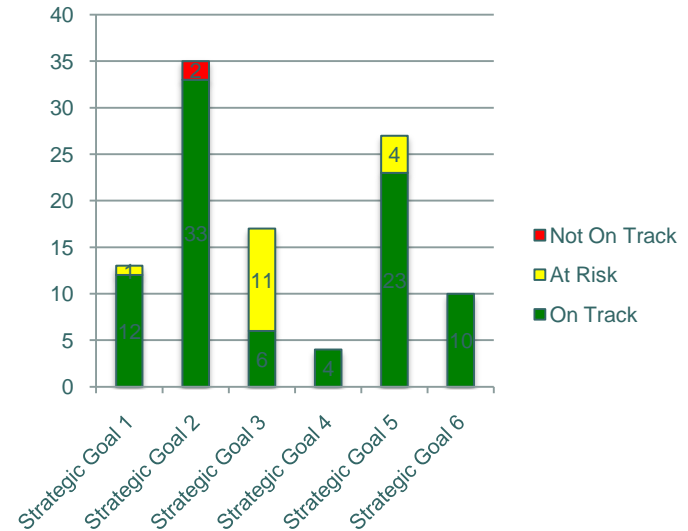
Note: FY10 and FY11 figures have been adjusted to show comparable Exploration technology content within the Space Technology account consistent with the FY12 Budget. FY11 CR column does not include 51M SBIR payback transfer from Science/ESMD to Space Technology and will be communicated via future op plan.

# Analysis of Annual Performance Goals (APG) and 3-5 yr Performance Goals – FY11 Q2

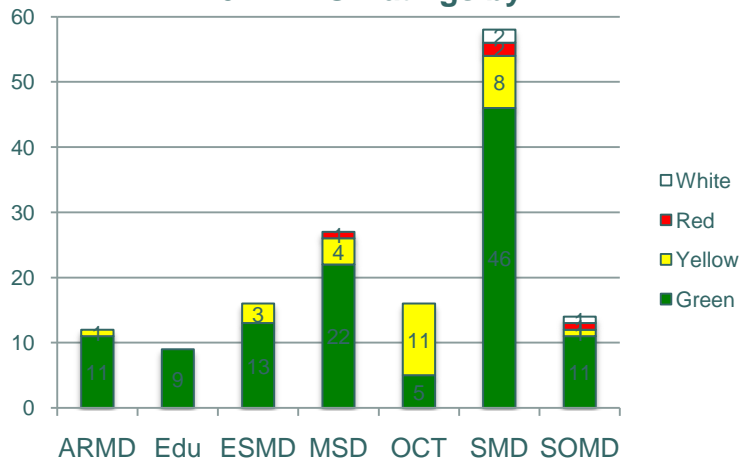
## FY 2011 APG Ratings by Strategic Goal



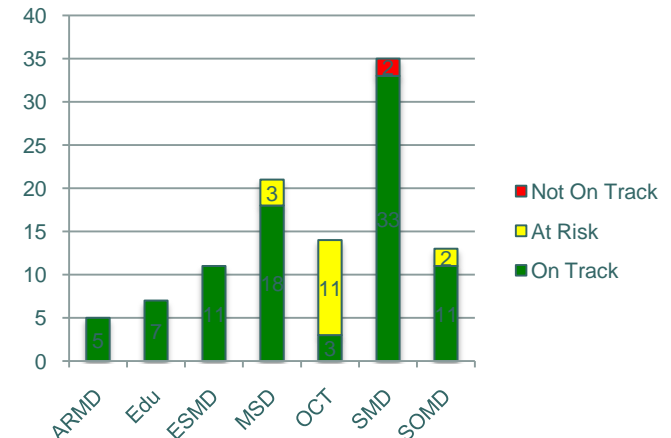
## FY 2011 Performance Goal Ratings By Strategic Goal



## FY 2011 APG Ratings by MD



## FY 2011 Performance Goal Ratings By MD



Note: APGs that appear under more than one Performance Goal or appear under a Performance Goal and the Efficiency Measures are counted only once.



# FY2011 Financial Statement Audit



# FY 2011 Financial Statement Audit

- Price Waterhouse Coopers (PwC) has succeeded Ernst & Young (E&Y) as NASA's financial statement auditor
- PwC has been awarded a two (2) year contract
- PwC has committed to ensure that audit communications are often and potential issues are shared early (no surprises)
- The Scope of the Audit : "The primary goal is to determine if the financial statements are fairly presented in all material aspects."
- Field work has already begun



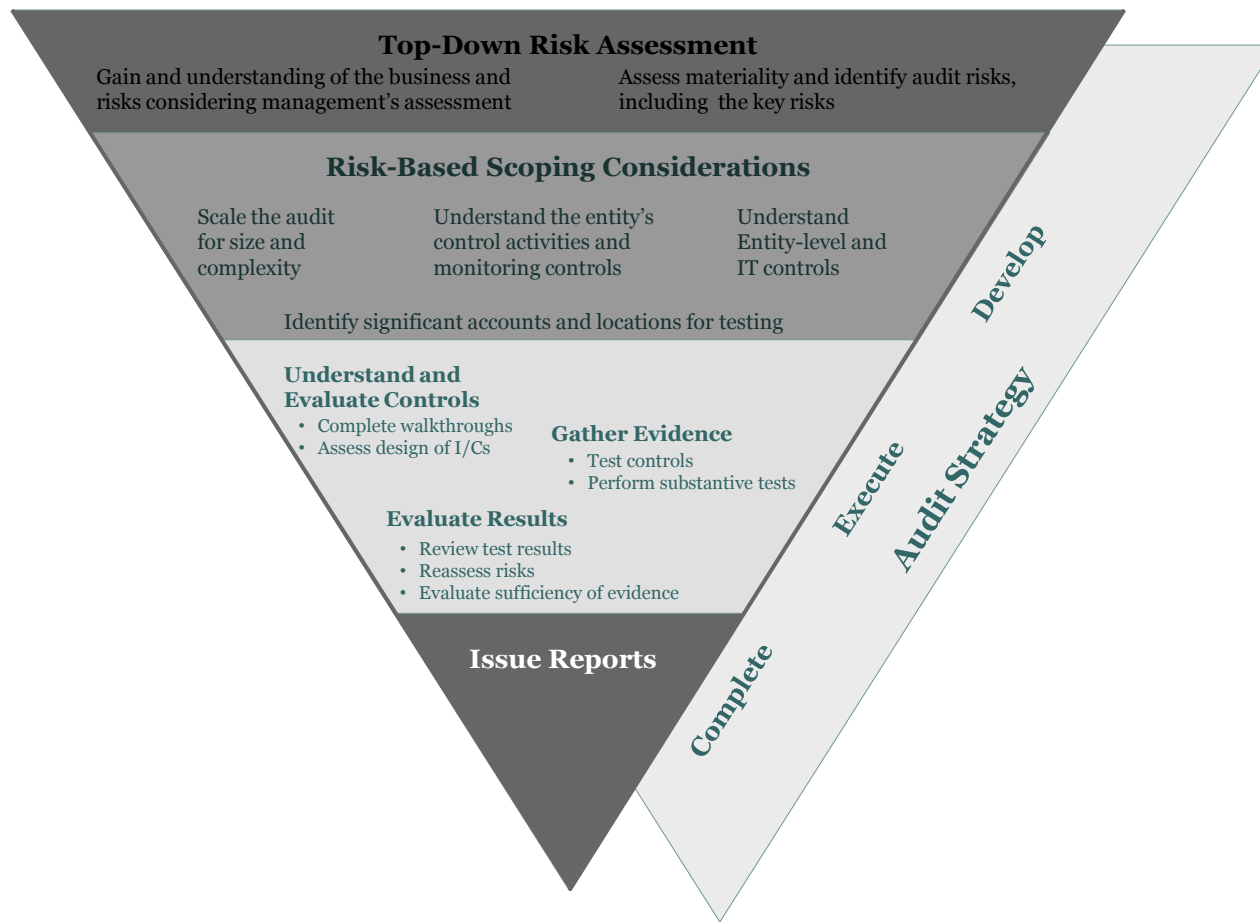
# PwC Client Service Goals

Consistent with their core principles and practices, PwC is committed to:

- Working collaboratively with NASA
- Delivering a timely and compliant audit
- Avoiding surprises – by communicating their approach and the results of their testing on a regular basis
- Providing experienced resources to complete the audit

# PwC's Top-Down, Risk-Based Audit Approach

PwC tests and evaluates evidence related to key transaction cycles, risks and internal controls





# Areas of Emphasis

**PwC currently anticipates testing across the following transaction cycles:**

- Fund Balance with Treasury
- Property, Plant and Equipment
  - Government Owned, Contractor Held Property
- Environmental Liabilities
- Grant Expenditures
- Purchases and Payables
- Payroll
- Accounts Receivable/Reimbursable Agreements/Revenue
- Budgetary Funding and Execution
- Financial Reporting



# PwC Information Technology - Focus

**Systems and technology are of critical importance to process, record and report the financial results of NASA's operations. Testing will focus on the following areas:**

- General computer controls over financially-significant system environments, including the NASA Enterprise Application Competency Center (NEACC) and other relevant general support system environments.
- Application controls over financially-significant systems, including key SAP automated configurable controls.
- Interface controls with the Department of the Interior (payroll) and the Department of Health & Human Services (grants).
- Internal and external network security testing related to financially significant systems.
- Data conversion controls during the recent migration from NASA Real Property Inventory (NRPI) database to the SAP Real Property Module (RPM).



# Timing and Execution of the Audit

<b>Timeframe</b>	<b>Phase</b>	<b>Activities</b>
<b>March - May</b>	<b>Planning</b>	<b>Hold Entrance Conference</b>  <b>Hold interviews with key members of NASA's management or designee to obtain an understanding of the internal controls over financial reporting</b>  <b>Perform scoping activities</b>  <b>Perform preliminary assessment of internal controls</b>
<b>May - June</b>	<b>Internal Control</b>	<b>Continue to gain an understanding of internal controls</b>  <b>Assess design of internal controls</b>  <b>Determine nature, timing and extent of test of internal controls</b>  <b>Perform non-sampling internal control tests</b>
<b>May - Nov</b>	<b>Testing</b>	<b>Perform internal control, compliance, and substantive tests</b>
<b>Sept - Dec</b>	<b>Reporting</b>	<b>Confirm adequacy of scope and audit testing</b>  <b>Evaluate test results</b>  <b>Complete other audit procedures</b>  <b>Determine conformity with GAAP</b>



# NASA Office of Inspector General (OIG) Audit Projects



# NASA OIG Audit Projects

- Shifting from emphasis on compliance audits to greater focus on program and performance audits
- Goal is to provide greater value to NASA programs by focusing on issues of greater importance to NASA's mission and operations
- Examples of ongoing performance audits:
  - Audit of NASA's Project Management Practices
  - Audit of NASA's Planning and Budgeting for Construction Projects
  - Audit of NASA's Grant Administration and Management



# OIG Audit of Project Management

Background: NASA continues to have difficulty meeting cost, schedule, and performance objectives for many of its projects. The need to effectively manage its wide-ranging portfolio will only increase in importance as NASA operates in an increasingly constrained fiscal environment.

Objective: Identify management practices and challenges that contribute to ongoing cost overruns, schedule delays, and performance shortfalls.



# OIG Audit of Planning and Budgeting for Construction Projects

Background: Facility construction and revitalization are essential to maintaining infrastructure that is safe and capable of supporting NASA's varied missions. The Construction of Facilities Program identifies and funds construction of new facilities as well as refurbishment and major repair projects. Between 2006 and 2010, NASA has spent approximately \$1.9 billion on these types of projects.

Objective: Determine whether NASA has effective plans and processes in place to appropriately identify, prioritize, and administer construction projects in a manner that enhances the Agency's ability to meet current and future mission requirements.



# OIG Audit of Grant Administration and Management

Background: NASA awards grants to facilitate research and development projects; to fund scholarships, fellowships, or stipends for students, teachers or other faculty; and to fund research performed by educational institutions or other non-profit organizations. In FY 2010, NASA awarded a total of \$890.7 million in such grants.

Objective: Determine whether NASA's grant funds are being used for their intended purpose and whether the Agency is compliant with established laws, regulations, and NASA-specific guidance in its administration and management of the grants.



# Unfunded Environmental Liabilities



# UEL UPDATE

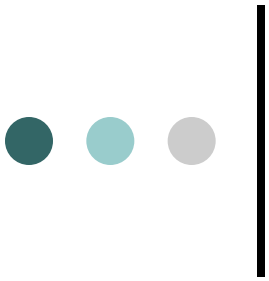
**Previous financial statement auditor (E&Y) was satisfied with the FY2010 UEL estimate, but recommended some enhancements**

**Continued Progress:**

- Refinements to the estimating processes
- Additional disclosures of categories of UEL's planned

**New financial statement auditor (PwC) to focus on UEL given its materiality**

- NASA will work closely with PwC to ensure a mutual understanding
- A white paper will be prepared documenting the UEL estimating process enhancements since the end of the FY2010 financial statement audit



# GAO Quick Look Book Audit



# Background

- The GAO's "Quick Look Book" (QLB) audit of NASA's major programs, projects, and activities is an extensive, on-going annual process and is Congressionally-mandated
- Magnitude and complexity of types of projects included, data requests and action items has grown significantly since inception in 2008
- Involves efforts by six Centers, three Mission Directorates and many key functional offices at Headquarters (e.g. Office of the Chief Financial Officer, Independent Program and Cost Evaluation, Office of Procurement, etc.)

# GAO Issues Summary

## Quick Look 2008, 2009, and 2010

	Funding Issues			Launch Issues			Parts Issues			Technology Issues			Design Issues			Contractor Issues			Development Partner Issues		
	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010
Aquarius		x	x										x	x		x			x	x	x
Ares		x	x							x	x	x									
Glory			x		x	x			x	x	x		x	x		x	x				
GPM		x	x								x				x						x
GRAIL					x	x					x	x									
ICESat-2			x			x															
Juno									x		x	x		x	x			x		x	
JWST		x	x								x				x			x			
LADEE						x			x			x									
LDCM			x						x		x									x	
MAVEN						x									x						
MMS												x			x						x
MSL									x	x	x		x	x	x	x					
NPP						x				x	x		x	x					x	x	x
OCO-2			x						x												
Orion		x	x							x	x	x					x				
RBSP									x									x			
SMAP			x			x															
SOFIA		x								x	x	x			x	x	x	x			
SPP						x															
TDRS									x												
Count of occurrences	0	6	10	0	2	8	0	0	8	6	11	7	4	5	7	4	3	4	2	4	4

Cites ARRA funds as evidence of funding issues

Subjects of other GAO audits



# GAO Management Letter

- Because Quick Look does not present findings or recommendations, GAO issued a “Management Letter” with recommendations based on Quick Look Audit
- Letter received 2/10/11 (for review period March 2010 thru February 2011)
- GAO Recommendations

1. Lack of Transparency Into Early Project Development Costs

*OCFO should provide progress reports for NASA space flight programs and projects in formulation that include information on cumulative prior budget authority and current cost ranges in NASA’s annual budget submission to the Congress.*

***NASA Response : NASA is currently in process of revising its budget justification and may consider inclusion of additional information on projects in formulation as part of this activity***

2. Lack of Design Metric May Contribute to Project Cost Growth

*OCE should develop a common set of measureable and proven criteria...to assess design stability...and amend NASA’s systems engineering policy, accordingly.*

***NASA Response: OCE provided Design Stability metrics to GAO in March 2011***

- *% use of mass margin versus planned use of mass margin*
- *% use of power margin versus planned use of power margin*
- *% of overdue project RFAs*



# Audit, Finance, and Analysis Committee

*No specific observations, findings, or recommendations at this time.*